

Survey Master

Compatible with most of Android devices

Easier survey workflow via Wizard function

Support up to 60° IMU tilt compensation

Support all survey modes, including Static, PPK and RTK

Support Surface Stake, Mapping Survey and etc. to serve various survey tasks

Support CAD import and directly use for stake out operations

Support Convert function from ComNavBinary raw file to RINEX

Optional



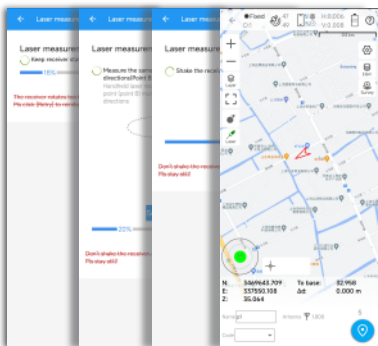
Microsurvey FieldGenius

Android

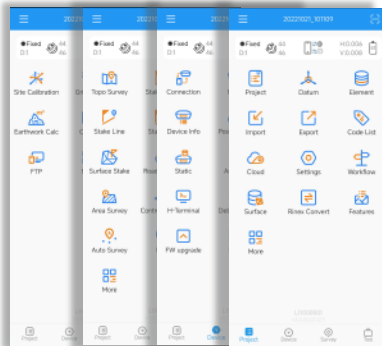


Microsurvey FieldGenius

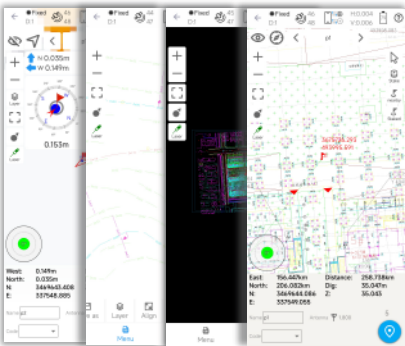
Windows



IMU Tilt Survey



New Interface



CAD Basemap and Stake

Post-processing Software

SinoGNSS Compass solution software

Provide the complete GPS/GLONASS/BeiDou/GALILEO post-processing solution

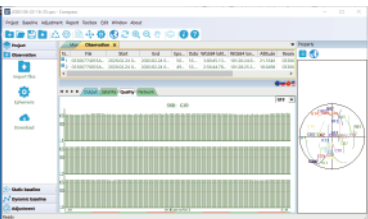
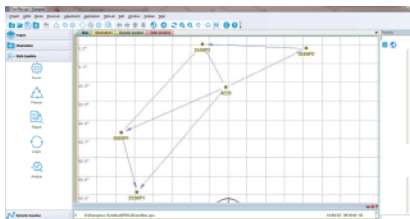
Support GNSS observation data in RINEX and ComNav Raw Binary Data format

Support different post-processing in static and kinematic modes

Output analysis reports in various formats (web format, DXF, TXT, KML)

Supports DJI's P4R data format. Processing results can be imported into photogrammetry

and 3D modeling software directly



Mars Pro-TH Laser RTK

GNSS Surveying System

Ver.2025.05.07

Signal Tracking

Channel: 1668

GPS: L1C/A, L1C, L2P, L2C, L5

BDS: B1I, B2I, B3I, B1C, B2a, B2b

GLONASS: G1, G2, G3

Galileo: E1, E5a, E5b, E6c, E5 AltBOC

QZSS: L1C/A, L2C, L5, L1C

IRNSS: L5

SBAS: L1C/A

Performance Specification

Signal Re-acquisition: ≤1s

Cold Start: ≤45s

Hot start: ≤15 s

RTK Initialization Time: <10s(Baseline≤10km)

Initialization reliability: ≥99%

Data Update Rate: 1Hz, 2Hz, 5Hz, 10Hz, 20Hz

Mode	Accuracy
Static and Fast Static	Horizontal 2.5 mm + 0.5 ppm RMS Vertical 5 mm + 0.5 ppm RMS
Long Observations Static	Horizontal 3 mm + 0.1 ppm Vertical 3.5 mm + 0.4 ppm
Network RTK	Horizontal 8 mm + 0.5 ppm Vertical 15 mm + 0.5 ppm
Single Baseline RTK	Horizontal 8mm + 1ppm RMS Vertical 15mm + 1ppm RMS
Post Processing Kinematic(PPK)	Horizontal 5 mm + 1 ppm Vertical 5 mm + 1 ppm
DGPS	<0.4m RMS
SBAS	Horizontal 0.5 RMS Vertical 0.8 RMS
Standalone	1.5m 3D RMS
Laser Tilt Measurement	≤5.5cm (5m range, ≤60°Tilt in Laser mode)

Data Format

Correction data I/O: RTCM2.X, 3.X,CMR(GPSonly),CMR+(GPSonly)

Position data output: - ASCII: NMEA-0183 GSV, RMC, HDT, GGA, GSA, ZDA, VTG, GST; PTNL, PJK; PTNL, AVR; PTNL, GGK
-ComNav Binary update to 20 Hz

Electrical and Battery

Voltage: 7-28 VDC

Power Consumption: 1.8W 4

Li-ion battery capacity: 2 x 3400 mAh

Working time: 20h

Memory: 32 GB

Communication

1 Serial port (7 pin Lemo)

- Baud rates up to 921,600 bps

Datalink¹:

- Tx/Rx with full frequency range from 410-470MHz²

- Transmit power: 0.5W, 1W, 2W adjustable

- Air Baud Rate: 9600 / 19200 adjustable

- Range³: 3-5 km

- Protocol type: Transparent/TT450S/South/Mac/SATEL

WiFi/4G modem

- LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B20/B25/B26/B28

- LTE-TDD: B38/B40

- WCDMA: B1/B2/B4/B5/B8

- GSM: B2/B3/B5/B8

Position data output rates: 1 Hz, 2 Hz, 5 Hz, 10 Hz, 20 Hz

2 LEDs (indicating Satellites Tracking and RTK Corrections data)

1 OLED Display and 2 Function buttons

Bluetooth[®] : V 4.0 protocol, compatible with Windows OS and Android OS

Calibration-free IMU integrated for Tilt Survey

Up to 60°tilt with 2.5 cm accuracy

Environmental Specification

Working Temperature: -40 C to +65 C (-40°F to 149°F)

Storage Temperature:-40 C to +85 C (-40°F to 185°F)

Humidity: 100% non-condensing

Water- & Dustproof: IP67

Shock: Survive a 2m drop onto the concrete

Vibration: MIL-STD-810G Method 514.6 procedure

Physical Specification

Housing Material: Aluminium magnesium alloy

Dimension: Φ 15.5 cm x 7.3 cm

Weight: 1.2 kg with two batteries

Laser Specification

Range: 10m

Accuracy(room temperature): (3-5)mm + 1ppm

Measuring Frequency: Classic Value: 3Hz

Maximum Value: 5Hz

Laser Injection Power: 0.9mW~1.5mW

Working Temperature: -20 C~+50 C

Storage Temperature: -30 C~+60 C

1. UHF modem is default configuration and it can be removed according to your specific needs.
2. Integrated UHF ranges from 410 to 470 MHz with 12.5 KHz channel spacing.
3. Working distance of internal UHF varies in different environments, the maximum distance is 5 Km in ideal situation.
4. Power consumption will increase if transmitting corrections via internal UHF.

ComNav Technology Ltd.



Building 2, No. 618 Chengliu Middle Road, 201801, Shanghai, China

Web: www.comnavtech.com

Tel : +86 21 64056796

Email: sales@comnavtech.com

Fax: +86 21 54309582



SinoGNSS[®]
By ComNav Technology Ltd.

Mars Pro-TH Laser RTK

Universe Series GNSS Receiver

LASER RTK - INNOVATION MAKES THE DIFFERENCE

| Features

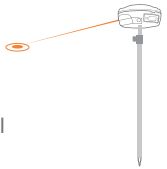
Laser distance meter solves complex surveying tasks

Innovatively combining laser modules with high-performance GNSS receivers, Mars Pro-TH offers a more diverse range of surveying operations, and is able to solve problems in a variety of demanding condition.

SATELLITE TRACKING			SATELLITE TRACKING		
	GPS	L1C/A, L1C, L2P, L2C, L5		QZSS	L1C/A, L2C, L5, L1C
	BDS	B1I, B2I, B3I, B1C, B2a, B2b		IRNSS	L5
	GLONASS	G1, G2, G3		SBAS	L1C/A
	Galileo	E1, E5a, E5b, E6c, E5 AltBOC			

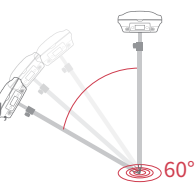
Laser Technology

The combination of the conventional GNSS receiver and the laser module reduces the difficulty of working in special cases, and fit the usage habits of surveyors.



Third Generation IMU Improves 30% Efficiency

Mars Pro-TH features a 3rd generation IMU, which eliminates manual initialization and simplifies surveying operations in the field. It can still support 60° compensation in the laser mode.



Robust Design

A shock-resistant, dustproof, and waterproof aluminium magnesium alloy body ensures uninterrupted performance wherever you are.



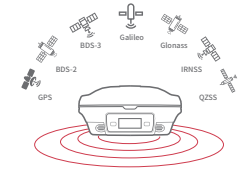
OLED color screen

The OLED color screen visually displays the number of satellites searched, fixed state, on-off state, power and other information, which is convenient for surveyors to control.



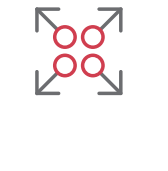
Full-Constellation Multi-Frequency

With 1668 channels and 60+ satellite tracking capabilities, Mars Pro-TH also supports SBAS PPP service. Getting fixed in seconds boosts your productivity.



Strong Compatibility

As the compatibility of datalink, it is compatible with mainstream brands, support various protocols, including Transparent/TT450S/South/Mac/SATEL, so as to reach wider users.



| Mars Pro-TH Laser RTK

Mars Pro-TH Laser RTK is an innovative GNSS receiver that integrates the latest GNSS, IMU, and laser technologies. In hard-to-reach, signal-obstructed, and dangerous fields, the millimeter-level laser distance meter on Mars Pro-TH's back makes surveying and stakeout easier and more stable. Equipped with the latest K8 platform, Mars Pro-TH tracks 1668 channels for all running and existing constellations. The built-in IMU sensor supports up to 60° tilt compensation, ensuring high-precision results. Its OLED color display with excellent sunlight readability is an interactive interface, providing more high-end operations.

SinoGNSS K8 Module



All-in-one Boards

OLED Color Screen



Aluminium Magnesium Alloy Housing

Millimeter Level Laser



LASER TECHNOLOGY



K8 MODULE



FULL-CONSTELLATION MULTI-FREQUENCY



PPP



IP67



OLED COLOR SCREEN

| R60 Data Collector

Patent for design, ergonomic operation

With advanced **NFC**, tedious matching is a thing of the past

9000mAh Li-Polymer Battery for continuously working **30+** hours
QC3.0, 0.5h charging enables all-day use

Qualcomm 8-core processor **Android 12** operation system with GMS certificate

4+64GB Memory
Open CAD drawing in seconds

5.5 inch sunlight readable screen
1080P HD display

Survive a 1.6m drop onto the concrete
Anti-static design, excellent heat dissipation

Physic **full QWERTY** keyboard speeds up working efficiency

5.0 Dual-mode Bluetooth, ultra long range Bluetooth connection



Qualcomm



1080P Resolution



5.5" Display



Full QWERTY



Android 12



LARGE CAPACITY



IP67